












NuTRoNS 2: Nucleonica Training on Nuclear Science

Joint EC/IAEA Nuclear Science Training Course with Nucleonica
14-16 November 2011









*To be held at the IAEA Marine Environment Laboratories
4b Quai Antoine 1er, 98000 Monaco*








14 November – Introduction

9:00	 Welcome to the IAEA Environment Laboratories	M. Betti. Director - IAEA-Environmental Labs.
9:10	 Nucleonica Overview	J. Magill, Nucleonica
9:20	 Radiological Quantities and Units	J. Magill
9:40	 Hands on exercises: Mass Activity Calculator	 Exercises Z. Soti, ITU
10:00	Case Study: Nuclide Mixtures	R. Dreher, Nucleonica
10:30 – Coffee		
10:50	Participants give a short presentation on their work	
12:30 – Break		
Basic Nucleonica Applications		
13:30	 Gamma Dosimetry & Shielding (D&S)	J. Magill
13:55	 Hands on exercises: D&S	 Exercises Z. Soti
14:30	Case Study: Cambio, WESPA, GSG	Z. Soti
15:00 – Coffee		
15:30	Case Study: Cambio, WESPA, GSG	Z. Soti
16:00	 Chart of Nuclides / Nuclear Data	Z. Soti
16:30	 Hands on exercises: Nuclear Data	 Exercises Z. Soti
17:00 – End of Session		

15 November – Environmental Radioactivity

9:00	 Interaction of Radiation with Matter	M.Eriksson, IAEA-EL
9:45	 Introduction to the Gamma Spectrum Generator	J. Zsigrai, ITU
10:30 – Coffee		
11:00	 Introduction to the Gamma Spectrum Generator	J. Zsigrai
11:30	 Cambio File Translation	G.P. Lasche, Sandia labs
12:30 – Break		
13:30	 Radionuclide Identification Using Identify & WESPA	Z. Soti
14:15	 Gamma library creation with Nucleonica	J. Zsigrai
15:00 – Coffee		
15:20	 Basic hands on gamma calibration (efficiency and energy calibration) for low activity environmental levels	I. Osvath(M. Eriksson, IAEA-EL
16:05	 Gamma spectrometric techniques for ultra low activity measurements – Underground facilities, Anti Compton and Cosmic radiation shield systems	J.-F. Comanducci, IAEA-EL
17:00 – End of Training Course		
19:00 – Banquet		

16 November – Roundup

9:00	 Radioactive Decay Calculations with Nucleonica	J. Magill
	 Hands on exercises: Decay Engine	 Exercises Z. Soti
10:30 – Coffee		
11:00	Virtual Cloud Chamber	J. Magill
11:30	 Hands on exercises: D&S	 Exercises J. Magill
12:00	Wiki, Blog, Forum, News	Z. Soti
12:30	Feedback, Questionnaire, Certificate	All
13:00 – Break		
14:00	Visit to the IAEA Laboratories	
16:00 – End of Training Course		